REMARKS

In view of the following remarks, the Examiner is requested to withdraw the rejections and allow claims 1, 2, 4-16 and 28, the only claims pending and currently under examination in this application.

Formal Matters

The claims have not been amended.

Claim Rejections - 35 USC § 102 Bass

Claims 1, 16, and 28 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Bass (US 6420180). The Applicants respectfully traverse this rejection.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, (Fed. Cir. 1987).

The standard for anticipation under section 102 is one of strict identity. An anticipation rejection requires a showing that each limitation of a claim be found in a single reference, *Atlas Powder Co. v. E.I. DuPont de Nemours & Co.,* 224 U.S.P.Q. 409, 411 (Fed. Cir. 1984). Further, an anticipatory reference must be enabling, see *Akzo N.V. v. United States Int'l Trade Comm'n* 808 F.2d 1471, 1479, 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986), *cert denied*, 482 U.S. 909 (1987), so as to place one of ordinary skill in possession of the claimed invention. To anticipate a claim, a prior art reference must disclose every feature of the claimed invention, either explicitly or inherently. *Glaxo v. Novopharm, Ltd.* 334 U.S. P.Q.2d 1565 (Fed. Cir. 1995).

Claim 1 and its dependents are drawn to an *in situ* fabrication process in which two of the steps involve removal of deblocking fluid. The Applicants submit that Bass fails to disclose each and every element of the claimed invention. For example, Bass does not disclose the displacement steps (d and h) of Claim 1, where these steps recite “removing deblocking fluid from the deblocked surface by displacing the deblocking fluid with a wash fluid.”

In making this rejection, the Examiner points to col. 2, lines 28-34 as allegedly anticipating Claim 1. This passage in Bass merely states that “one or more intermediate steps may be required in each cycle, such as [...] washing steps.”

However, the steps of Claim 1 reciting "removing deblocking fluid [...] by displacing the deblocking fluid with a wash fluid" are nowhere to be found in Bass.

In attempting to establish this rejection, the Examiner states in the Final Office Action (dated 7/21/08) that the missing claim limitation is "inherent in the washing step" as disclosed by Bass. The Applicants submit that the asserted inherent disclosure of "displacing the deblocking fluid with a wash fluid" runs contrary to established case law regarding establishing inherency. For example, as stated in *In re Robertson*:

> To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)

Contrary to the Examiner's allegation, the washing steps disclosed by Bass do not necessarily require the missing claim limitation as there are many other ways of performing a wash without "displacing the deblocking fluid with a wash fluid." In one way, fabrication substrate may be washed and blown dried without a displacement of one fluid with another fluid. One such example may be found in Gamble et al. (USPN 5,981,733), where the array substrate after being subjected to a wash stream "is then dried with a stream of compressed gas" (Column 13, lines 6-30). The relevant passage from Gamble is reproduced below.

> After the jetting device has de-protected the desired locations, the substrate is moved to the front of the wash station and rotated to a vertical position. A wash stream is directed against the substrate as the substrate is moved laterally past the nozzle. The substrate is then dried with a stream of compressed gas. This washing step removes any

Since "displacing the deblocking fluid with a wash fluid" is not necessarily present in Bass, it cannot be inherently disclosed in Bass.

In view of the foregoing discussion, steps (d) and (h) of Claim 1 are neither explicitly nor inherently disclosed in Bass. Since Bass cannot anticipate Claims 1, 16, and 28, the Applicants respectfully request the withdrawal of this rejection.

Claim Rejections - 35 USC § 103 Bass and Anderson

Claims 2 and 4-15 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over Bass (US 6420180) in view of Anderson et al. (US 5186824). The Applicants respectfully traverse this rejection.

In order to meet its burden in establishing a rejection under 35 U.S.C. §103, the Office must first demonstrate that a prior art reference, or references when combined, teach or suggest all claim elements. S*ee, e.g., KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740 (2007); *Pharmastem Therapeutics v. Viacell et al.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007); MPEP § 2143(A)(1). In addition to demonstrating that all elements were known in the prior art, the Office must also articulate a reason for combining the elements. See, *e.g., KSR* at 1741; *Omegaflex, Inc. v. Parker-Hannifin Corp.*, 243 Fed. Appx. 592, 595-596 (Fed. Cir. 2007) citing *KSR*. Further, the Supreme Court in *KSR* also stated that that "a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR* at 1740; emphasis added . As such, in addition to showing that all elements of a claim were known in the prior art and that one of skill had a reason to combine them, the Office must also provide evidence that the combination would be a predicted success.

Claims 2 and 4-15 further describe the *in situ* fabrication process of Claim 1. They are also ultimately dependent on Claim 1 and thus contain all the limitations of Claim 1. The Applicants submit that neither Bass nor Anderson teach or suggest each and every elements of Claim 1.

In making this rejection, the Examiner acknowledges that Bass does not provide any information on the wash fluid or deblocking fluid. The Examiner then cites Anderson for an alleged teaching of the type of washing fluid and blocking fluid. As noted above, Bass does not explicitly or inherently teach "displacing deblocking fluid with a wash fluid." The Applicants further note that Bass also does not suggest this claim limitation since details regarding how the washing steps are performed are nowhere to be found in Bass.

Since Anderson is solely cited for the type of washing fluid and blocking fluid as asserted by the Examiner, Anderson cannot remedy Bass's deficiency of not teaching or suggesting step d) and h) of Claim 1, in which "displacing deblocking fluid with a wash fluid" is recited.

In addition to the fact that Anderson cannot remedy Bass's deficiency for not teaching or suggesting step d) and h) of Claim 1 and that all claim rejections should be withdrawn for this reason alone, the Applicants further note that the combination of Bass and Anderson also does not teach or suggest the following dependent claims.

With respect to Claim 10, neither Anderson nor Bass teach or suggest the flow rate of the wash fluid to "range from about 1 cm/s to about 20 cm/s." In making this rejection, the Examiner cites column 5, lines 15-27, column 14, lines 44-53, and column 21, lines 30-65 in Anderson as allegedly teaching the importance of controlling flow rate because of reagent waste, and as such, one of skilled in the art would have been motivated to adjust the flow rate. The Applicants traverse this rejection of Claim 10.

A detailed review of the cited passages reveal that Anderson provides the teachings set forth in the following, none of which is related to a flow rate of "about 1 cm/s ro about 20 cm/s." Column 5, lines 15-27 teaches valves to control fluid flow. Column 14 teaches density sensors to ensure that the density of the incoming fluid is of the right density. In Column 21, Anderson teaches that the reason to minimize flow reversals (column 21, lines 30-65) is to minimize reagent consumption because switching incoming flow from the lower seal to the upper seal or vice versa requires more excess flow.

In view of the above, the Examiner's assertion that Anderson teaches the importance of **flow rate** is unsupported. Nowhere is there a teaching or suggestion relating to flow rate. As such, the Examiner fails to articulate any reasoning that would have prompted one of skilled in the art to arrive at the flow rate ranging "from about 1 cm/s to about 20 cm/s." Withdrawal of the rejection of Claim 10 is respectfully requested.

With respect to Claim 11, the Applicants contend that neither Bass nor Anderson teaches or suggests "sensing movement of the stratified fluid interface." In making this rejection, the Examiner points to column 12, lines 28-67 in Anderson. The Applicants submit that the cited passages only "illustrate the behavior of liquids that are introduced sequentially in increasing density [...] during rotation" (Column 12 and Figs. 2A-2D). These passages are completely silent on "sensing movement of

the stratified fluid interface." Since no teaching or suggestion is found anywhere in the cited references, rejection of Claim 11 should be withdrawn.

With respect to Claim 12-14, the Applicants submit that none of the cited references teach or suggest performing the claimed method "in a flow cell." In making this rejection, the Examiner cites column 5, lines 20-38 as allegedly teaching a flow cell "i.e. internal space for fluid flow so as to contact solid support (bottom of page 4 of Final Office Action dated 7/21/08). However, the Applicants contend that Anderson's rotating rotor cannot be a flow cell based on functional embodiments of the rejected claims construed by one of skilled in the art. To place an addressable array in a rotating rotor would not allow contact printing to "at least a first location and a second location of a surface of a substrate." An addressable array in a rotating rotor cannot exist as solid supports in suspension, as required by Anderson. In addition, this misconstruction by the Examiner would result in an embodiment where the substrate of the addressable array may be damaged while experiencing centrifugal force inside Anderson's rotor. Hence, neither Bass nor Anderson can teach the element of "a flow cell," as required by Claims 12-14.

In view of the foregoing discussion, the combination of Bass and Anderson cannot render the rejected claims obvious because not all the elements are taught or suggested in either reference. The Applicants further submit that dependent claims 10-14 also are nonobvious over Bass and Anderson for additional reasons set forth above. As such, the combination of these cited references cannot be used to establish a *prima facie* case of obviousness and the Applicants request that the rejection be withdrawn.

CONCLUSION

In view of the amendments and remarks above, the Applicants respectfully submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone Bret Field at (650) 327-3400.

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 and 1.17 which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-1078.

Respectfully submitted,

Date: September 22, 2008

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